IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
	)	
Armando Annunziato et al.	)	Group Art Unit: 2617
	)	
Application No. 10/566,677	)	
	)	Examiner: Vu, Michael T
Filed: February 1, 2006	)	
	)	
For: A METHOD FOR PLANNING	)	Confirmation No. 9211
CELLULAR COMMUNICATION	)	
NETWORKS, CORRESPONDING	)	
NETWORK AND COMPUTER	)	
PROGRAM PRODUCT THEREFOR	)	

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Commissioner for Patents
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Sir:

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Applicants respectfully request a pre-appeal brief review of the rejections in the Final Office Action dated July 27, 2009 and in the Advisory Action dated October 22, 2009. A Notice of Appeal and relevant fee payments accompany this request.

I.   Requirements for Submitting a Pre-Appeal Brief Request for Review

Applicants have met each of the requirements for this submission and therefore request review of the Examiner's rejections in the Final Office Action for the following reasons. This application has been rejected at least twice. Applicants have concurrently filed a Notice of Appeal. Applicants submit this Pre-Appeal Brief Request for Review setting forth legal or factual deficiencies in the rejections in five (5) pages or less. *See* Official Gazette Notice, July 12, 2005.

II.   The Rejection of Claims 22-42 is Legally Deficient

The rejection of claims 22-42 is legally deficient because the Examiner has not properly resolved the *Graham* factual inquiries, the proper resolution of which is the requirement for establishing a framework for an objective obviousness analysis. *See* M.P.E.P. § 2141(II), citing to *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), as reiterated by the U.S. Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In particular, the Examiner has neither properly determined the scope and content of the prior art, nor properly ascertained the differences between the claimed invention and the prior art, at least because the Examiner has not interpreted the prior art and considered *both* the invention *and* the prior art *as a whole*. *See* M.P.E.P. § 2141(II)(B).

The Examiner alleged that *Stanley* "indeed discloses that the design of wireless network infrastructure includes coverage area, geographic area, or location area that concern the quality of services such as infinite traffic sources, equal traffic density per source, and that lost calls are cleared, which are equated to the quality of service and/or cost function to be optimized." Advisory Action, page 2. This is incorrect. The Examiner mischaracterized *Stanley*.

For example, the Examiner alleged that col. 11, lines 36-45 and col. 12, lines 1-2 of *Stanley* disclose Applicants' claimed "cost function to be optimized" and "quality of service parameter," respectively. *See id.* This is also incorrect. In fact, the above-quoted portions of *Stanley* describe a radioport coverage model under the condition that the offered load is constant (*see Stanley*, col. 11, lines 34-35 and lines 43-45), in contrast to the earlier-described model in the previous section of *Stanley*, where the capacities at all radioports are equal (*see Stanley*, col. 6, lines 64-65 and col. 11, lines 36-40). However, regardless of which condition is assumed, the *value to be optimized* using *Stanley*'s cost function is the total radioport segment costs: C_{rad}. *See Stanley*, Fig. 6, where curves 72 represent C_{rad}. *See also* col. 12, line 66 to col. 13, line 2. Although the blocking probability P_b is a quality of service parameter, it is not the P_b to be optimized. In contrast, *Stanley* expressly discloses that "P_b is held *constant* in this discussion." *Stanley*, col. 11, line 67 to col. 12, line 1 (emphasis added). That is, P_b is a *constraint*, rather than an optimization target.

In addition, the Examiner cited col. 12, lines 60-61 of *Stanley* and alleged that "*Stanley* explicitly discloses the quality of service to cover a smaller geographical area … as were available to cover a large area…." Advisory Action, page 2. This, too, is incorrect. In fact, *Stanley* discloses in the above-quoted paragraph that this is considered "[u]nder the constraints of

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equation (10) ....." That is, the discussion is with respect to the constant channel capacity model in which the total radioport segment costs C_{rad} is to be optimized. However, *Stanley* does <u>not</u> disclose anything about the optimization of quality of service in its entire disclosure.

Moreover, the Examiner alleged that "*Stanley* clearly discloses the cost function that related to the coverage areas that added to a convex function" by citing col. 17, lines 16-23 and lines 29-32 of *Stanley*. Advisory Action, page 2. Again, this is incorrect. Contrary to the Examiner's allegation, *Stanley* discloses that "[f]acilities <u>costs</u> can be modeled as an additive term to the radioport cost function." *Stanley*, col. 17, lines 14-15 (emphasis added). That is, the added term to the convex function (which represents total radioport segment costs: C_{rad}, *see Stanley*, col. 17, lines 25-27) is another <u>*cost-related*</u> term (*i.e.*, facilities costs). *Stanley* further discloses that "under the <u>*constraints*</u> identified herein, it has been found that a cost optimal solution may be found ...." *Stanley*, col. 17, lines 28-29 (emphasis added). The desired quality of service and other options are <u>*constraints*</u>. The cost function, however, is defined to optimize the total radioport segment costs.

In the Advisory Action, the Examiner also alleged that *Yea* "teach[es] a controller optimiz[ing] both call quality and capacity in the network, although according to alternative embodiments the controller may optimize different parameters, such as quality of service to minimize the number of calls dropped at the expense of network capacity are based on different cells and/or locations, geographical areas, etc." Advisory Action, page 2. This is incorrect.

Yea's system and method is for dynamically adjusting network load by measuring or estimating the loading status of a network. *See Yea*, col. 2, lines 45-47. *Yea* discloses a controller for optimizing call quality and capacity. *See Yea*, col. 3, lines 32-33. However, neither the call quality nor the capacity constitutes Applicants' claimed "quality of service of ... location-based service." That is, the call quality relates to voice service and the network capacity is not a service. Even though *Yea* discloses that the controller may also minimize the number of calls dropped, it is "at the expense of network capacity." *Yea*, col. 3, lines 35-36. The "number of calls dropped" is clearly different from Applicants' claimed "quality of service of ... location-based service."
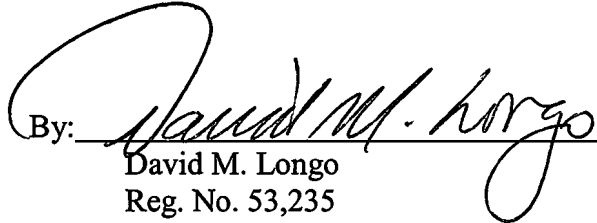
III.   <u>Conclusion</u>

Therefore, the rejection of claims 22-42 does not meet the requirements of M.P.E.P. § 2141 and 35 U.S.C. § 103(a), and thus, is legally deficient and should be withdrawn. Claims 22-42 should be allowed.

Respectfully submitted,

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Dated: December 28, 2009   By: _____

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